



16 March 2020

Manager Aeronautical Services

Civil Aviation Authority
PO Box 3555
Wellington 6140

Dear Sir,

Application for designation of temporary special use airspace:

Please find attached the following documents in support of our request for the establishment of restricted airspace to ensure the safety of flight operations overhead the 36th America's Cup event to be held in Auckland between December 2020 and March 2021;

- Completed CAA Form 24071/01 (1 page).
- Airspace application – Supplemental information (4 pages).
- Schedule for 36th America's Cup (1 page).
- America's Cup Airspace Diagram – V0.5 (1 page).
- Airspace Operations Plan – Draft V0.3 (39 pages).

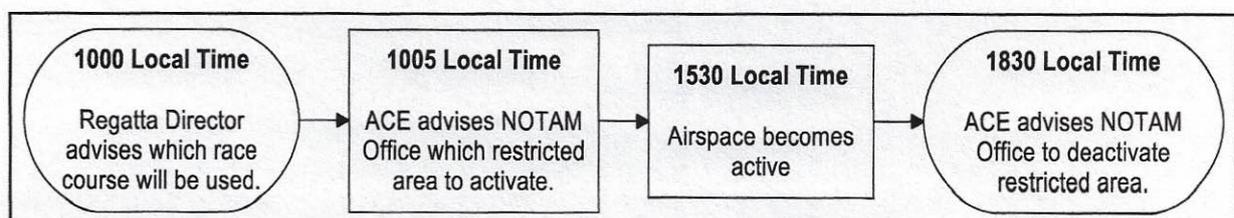
Under the Host Venue Agreement, America's Cup Event Limited (ACE) has responsibility to manage delivery of the America's Cup in Auckland. This includes all aspects of the on-water and on-land activities associated with the event including underlying surety around regulatory compliance, crowd management, and public safety.

ACE has contracted Tony Monk of Tony Monk Films and Qwilton Biel of IQ Aviation to ensure that flight operations and airspace matters associated with the event are appropriately dealt with. Tony and Qwilton both have 30+ years' experience coordinating and operating overhead major events in the Auckland region including America's Cup 2000, America's Cup 2003, numerous Whitbread Round the World Yacht Races (now Volvo Ocean Race), and Rally New Zealand events.

To minimise the impact of the restricted airspace on other users, our application proposes four individual airspace areas. The small area overhead the Race Village would be permanently active for the duration of the event. The other three areas would be activated by NOTAM as required dependent upon which race course is used on each race day. Only one airspace area will be activated on any given race day.

Airspace activation timeline:

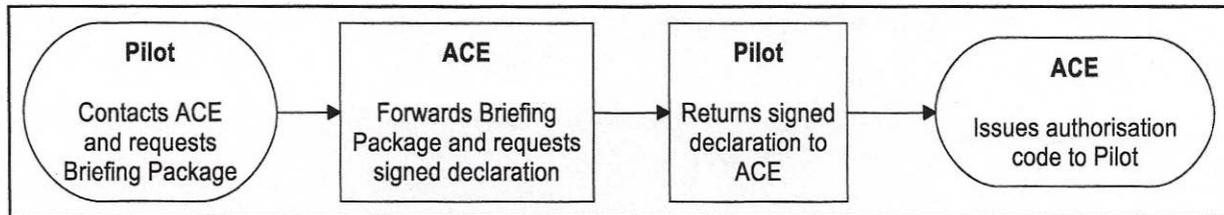
The indicative timeline for airspace activation on each race day is as follows;



Airspace entry criteria:

Entry to the airspace will be managed by a pilot pre-authorisation process similar to that used for previous America's Cup events in Auckland.

The indicative process for obtaining approval to enter the airspace is as follows;



Operations within the airspace:

Two defined circuit patterns will be used to manage aircraft operations within the restricted airspace.

Aircraft at or below 1000 feet AMSL will not be subject to any speed restrictions or predetermined circuit direction. Access to this circuit will be limited to helicopter and drone operations by the administering authority and host broadcaster.

All other aircraft will operate at 1500 feet AMSL in a left hand circuit at a minimum of 20 knots indicated airspeed (IAS).

It is not intended to introduce a slot management system for airspace access however should traffic numbers become unmanageable this may become necessary.

The pilot briefing package will include information on procedures and requirements for operations within the airspace as well as contingency and emergency procedures.

Event Operations Centre:

Qwilton will form part of our Event Operations Centre team on each race day. He will have full access to all of the event monitoring resources available, and will also have an aviation radio station capable of two-way communication with aircraft in the airspace if required.

His role is to monitor access to the airspace and operations therein. ACE does not intend providing traffic information or a separation service within the restricted airspace.

Airspace Operations Plan – V0.3:

The Airspace Operations Plan included with this application is an evolving document that reflects known information and current thinking at the date of revision. As the event moves closer, and we get greater clarity around various aspects of it, this plan will be updated to ensure its accuracy.

We trust the information provided is sufficient to enable our application to be progressed, should you require any clarification on its content please contact Qwilton Biel on (027) 493 5655 or qwilton@biel.nz.

Yours faithfully,



Tom Mayo
Mayo & Calder (Event Delivery Partner)
C/: ACE Ltd & Challenger of Record



Grant Calder
Mayo & Calder (Event Delivery Partner)
C/: ACE Ltd & Challenger of Record

CAA Form 24071/01

Application for designated airspace or reporting point



CIVIL AVIATION AUTHORITY
OF NEW ZEALAND

Note: The CAA Standard Rate hourly charge applies.

1. Organisation Details

Person completing application	Qwilton Biel				
Legal name of organisation:	America's Cup Event Limited				
Trading or Division name:					
CAA Client No: (if known)					
Tel: 027 493 5655	Fax: N/A	Email: qwilton@biel.nz			

2. Reason for Application

Activity or event:	36th America's Cup (Refer attached sheet)
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3. Designation details

Type of designation requested:			
03 - Control zone <input type="checkbox"/>	04- VFR Transit Lane <input type="checkbox"/>	05 – Control Area <input type="checkbox"/>	
07 – Mandatory Broadcast Zone <input type="checkbox"/>	08 – General Aviation Area <input type="checkbox"/>	09 – Restricted Area <input checked="" type="checkbox"/>	
10 – Military Operating Area <input type="checkbox"/>	11 – Danger Area <input type="checkbox"/>	12 – Low Flying Zone <input type="checkbox"/>	
13 – Volcanic Hazard Zone <input type="checkbox"/>	15 – Parachute Landing Area <input type="checkbox"/>	16 – Common Frequency Zone <input type="checkbox"/>	
Status:	<input type="checkbox"/> Permanent <input checked="" type="checkbox"/> Temporary		
Activation: timing or means	17 Dec 20 - 21 Mar 21 (Refer attached sheet)		
<i>(indicate whether active by UTC, NZDT or NZST time, or active by day, or active by NOTAM)</i>			
Location: area or aerodrome	Briefing Area NZ01		
Lateral dimensions	Refer attached sheet		
<i>(Indicate using a radius or significant features or geographical coordinates in WGS-84: GPS datum)</i>			
Vertical dimensions	SFC - 2000 feet AMSL		
<i>(Give lower and upper limits in feet; state whether above mean sea level: AMSL or above ground level: AGL)</i>			

4. Administrating Authority, Using Agency or ATC unit

Agency	America's Cup Event Limited
<i>(Indicate which agency will act as an administering authority for a restricted area or MOA, a using agency for a danger area or low flying zone, or an ATC unit if controlled airspace)</i>	
Airspace contact: person/position	Qwilton Biel
Contact details or frequency	027 493 5655

Consultation and other information

Consultation: evidence of or agreements and discussion with other affected airspace users <i>(on separate sheet if necessary)</i>	Refer attached sheet
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An application for a permanent airspace change must be submitted at least 90 days prior to the effective date to:

Manager Aeronautical Services
Civil Aviation Authority
PO Box 3555
Wellington 6140
New Zealand

airspace@caa.govt.nz

Airspace application - Supplemental information

Supplemental information for application to designate airspace

Activity or event: The 36th America's Cup incorporating the Christmas Race, the Prada Cup, and the Match.

Activation timing or means: The Christmas Race 17 December – 20 December 2020
 The Prada Cup 15 January – 22 February 2021
 The Match 06 March – 21 March 2021

Activation to occur by NOTAM on certain days within these date ranges, dictated by racing schedule and weather conditions. Refer to attached event schedule.

Lateral dimensions: Refer to attached map.

Airspace Area One			
An area contained within a line joining;			
Hobson Wharf Extension	365024.43S	1744548.80E	GRC
Lower Hobson Street	365035.97S	1744549.66E	GRC
Saint Marys Bay	365028.02S	1744511.07E	GRC
Silo Park Marina	365022.99S	1744513.22E	GRC
Tank Farm	365014.63S	1744523.29E	GRC

Airspace Area Two			
An area contained within a line joining;			
Campbells Bay	364438.81S	1744540.05E	GRC
	364439.14S	1744949.36E	GRC
Rangitoto Lighthouse	364654.81S	1744920.82E	GRC
A line following the mean high water mark from	364642.01S	1744636.22E	FNT

Airspace Area Three			
An area contained within a line joining;			
Strand Access Ramp	364716.26S	1744633.10E	GRC
A line following the mean high water mark from	364604.26S	1745022.67E	FNT
Islington Bay Jetty	364738.01S	1745347.54E	GRC
Emu Point	364747.32S	1745443.50E	GRC
Browns Island	364952.54S	1745359.25E	GRC
A line following the mean high water mark from	365037.28S	1745149.86E	FNT
Orakei Marina	365056.24S	1744838.79E	GRC
A line following the mean high water mark from	365001.86S	1744746.18E	FNT

Airspace Area Four			
An area contained within a line joining;			
Musick Point	365044.40S	1745404.97E	GRC
Crusoe Rock	364845.93S	1745824.00E	GRC
Kennedy Point	364847.66S	1740117.35E	GRC
Motukaraka Island	365235.62S	1745845.14E	GRC

Consultation:

Organisation:	Airways NZ	Contact Person:	Jan Haynes
Date:	27 November 2019	Type of Operation:	ANSP
Notes/Comments: Upper limit of proposed restricted areas impinges on controlled airspace. Whenuapai Tower and Auckland Terminal both advise that an upper limit of 2000 feet can be accommodated within normal operations.			

Organisation:	Ardmore Flight Operations Group	Contact Person:	Allan Bostock
Date:	04 December 2019	Type of Operation:	Various
Notes/Comments: Provided information about proposed race courses, airspace areas, and likely activation times. No specific concerns raised but requested to be kept updated as plans develop.			

Organisation:	Helicopter Me	Contact Person:	Richard Poppelwell
Date:	21 January 2020	Type of Operation:	Heliport Operator
Notes/Comments: Access to Mechanics Bay from the east, south, and west not materially affected by the proposed airspace. Would like to preserve an approach/departure path to the north via Stanley Point/Bayswater if at all possible.			

Organisation:	Air Bubble	Contact Person:	Sam Champion
Date:	22 January 2020	Type of Operation:	Banner Towing
Notes/Comments: Over water airspace restrictions are not an impediment as they don't operate beyond the shoreline. Would like to see overland portions of proposed airspace revisited, particularly in the vicinity of Tamaki Drive and North Shore beaches.			

Organisation:	Auckland Aero Club	Contact Person:	Gavin Weir
Date:	24 January 2020	Type of Operation:	Aero Club
Notes/Comments: Will be able to work with it. Once activation protocols are established will ensure that their flight desk provides information to members who are flying on affected days.			

Organisation:	Air Auckland	Contact Person:	Mike Foster
Date:	24 January 2020	Type of Operation:	Fixed-wing Charter
Notes/Comments: Short activation period and late in the day helps. Most flights will be able to operate above the upper limit. Will probably get pilots registered to access the airspace just in case they receive inquiries for spectator charter flights.			

Organisation:	Christian Aviation	Contact Person:	David Brown
Date:	24 January 2020	Type of Operation:	Fixed-wing Charter
Notes/Comments: Doesn't affect their most common routes, will be able to work with it.			

Organisation:	Auckland Seaplanes	Contact Person:	Chris Sattler
Date:	24 January 2020	Type of Operation:	Seaplane Operator
Notes/Comments: Request to keep restricted airspace clear of water aerodrome if possible. Can work with the northern and eastern areas as drafted. The central area (North Head/Orakei) presents some challenges when climbing out to the east, suggestion is they get pilots registered to access the airspace and we develop an operating protocol for days when easterly seaplane departures are required.			

Organisation:	North Shore Aero Club	Contact Person:	Daryl Gillett
Date:	28 January 2020	Type of Operation:	Aero Club
Notes/Comments: Will be able to work in with airspace closures. They have a pre-flight briefing regime which activations will be introduced into, including a final layer of protection by placing a note on the door through which everyone passes to access the aircraft. Suggestion that Airways be asked to consider removal of charging for aircraft transiting the Whenuapai Control Zone during the event.			

Organisation:	Auckland Rescue Helicopter Trust	Contact Person:	Roger Hortop
Date:	29 January 2020	Type of Operation:	Rescue Helicopter
Notes/Comments: Will aim to avoid the airspace either laterally or vertically, but would appreciate a mechanism to permit transit in cases of safety to life. Would like a standardised procedure developed for use should they be called to an incident within the airspace, or should it be necessary to use the GPS instrument flight procedures to Mechanics Bay whilst the central airspace area is active.			

Organisation:	RNZAF	Contact Person:	Andrew Fisher
Date:	30 January 2020	Type of Operation:	Air Force
Notes/Comments: Acknowledged the Airways input that normal operations would be unaffected by airspace activation. Couldn't foresee any defence activities that would be impacted, especially given the short duration and lateness in the day of airspace activation. Would like the Devonport Naval Base outside the restricted airspace if possible to allow helicopter access. Noted that should national security provisions be invoked they will be responding as they see fit.			

Organisation:	Advanced Flight	Contact Person:	Keith Stephens
Date:	31 January 2020	Type of Operation:	Police Helicopter
Notes/Comments: Do operate in the proposed areas from time to time in response to incidents on the surface. Will need to arrange a mechanism to permit this to continue. Would also like a standardised procedure developed in case they are deployed to an incident on the race course.			

Organisation:	Auckland Airspace Users Group Distribution List		
Date:	12 February 2020	Type of Operation:	Various
Notes/Comments:			
<p>An email was sent to the 175 addresses on this distribution list outlining the airspace proposal and included a map of the proposed areas. Very few responses were received.</p> <p>The only response raising concerns was from Fly My Sky who operate airline services between Auckland Airport and Great Barrier. They noted that the eastern area, and portions of the central area, block the track they normally fly. The time of day and predominantly weekend activation of the airspace does not help them. After further email dialogue they now understand that only one airspace area will be active on any given day, and that the eastern area is the race course of last resort from a sailing perspective. Will need to look at a mechanism to allow VFR transiting aircraft to fly overhead the restricted airspace at 2000 feet within the Auckland TMA to minimise disruptions.</p>			

Schedule for 36th America's Cup

Schedule for 36th America's Cup

	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Dec-20		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Jan-21					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Feb-21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28							
Mar-21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31				

- America's Cup World Series
- Round Robins and Repechage
- Prada Cup Final
- Match
- Reserve Day

America's Cup Airspace Diagram – V0.5

America's Cup Airspace

V0.5 - 13 March 2020



Rosedale

Airspace Area Two

Motutapu Island

ield

Takapuna

Rangitoto Island

Motuihe Island

Airspace Area Three

Airspace Area Four

Airspace Area One

Auckland

St Heliers

Google Earth

Image © 2020 Maxar Technologies
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
© 2020 Google
Image © 2020 TerraMetrics

Remuera

Airspace Operations Plan – Draft V0.3



AIRSPACE OPERATIONS PLAN – DRAFT VERSION 0.3 – FEBRUARY 2020

REVISION	EFFECTIVE DATE
0.1	15 MAY 2019
0.2	20 DECEMBER 2019
0.3	04 FEBRUARY 2020

*All dates and information correct at time of publication



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INTRODUCTION

Whilst the management of air operations is not specifically defined in the Host Venue Agreement (HVA), America's Cup Event /Challenger of Record (ACE/COR) are overlaying the same principles as applied to on-land and on-water crowd management in order to ensure the orderly movement of aircraft overhead and in the vicinity of the race course area.

Previous America's Cup events

Enabling legislation, restricted airspace, a pilot registration process, and standardised flight operations procedures were developed for both the America's Cup 2000 (AC2000) and America's Cup 2003 (AC2003) events held in Auckland.

Over the intervening period both the event itself, and aviation operations in general, have undergone many changes. Despite these changes, many of the core principles and processes developed and deployed in 2000 and 2003 remain valid today and will form the foundation for safe air operations overhead the 36th America's Cup.

Event changes

- Shorter race duration.
- Race course closer to shore.
- Animation/graphics in live broadcasts.

Aviation changes

- Introduction of unmanned aircraft.
- Enhanced camera performance/capability.
- Availability of collision avoidance technology.

Airspace Management

An application will be made to the Civil Aviation Authority (CAA) seeking restricted airspace designation, in the interests of safety within the civil aviation system, for the four areas shown in Figure 1. These areas will collectively be referred to as the America's Cup Airspace.

Each of the four areas are as small as practicable to enable orderly aircraft operations in conjunction with the respective race courses that they overlay.

ACE will be the administering authority responsible for the America's Cup Airspace and will operate in accordance with any conditions imposed by the CAA.

The type of activity to occur within the America's Cup Airspace is all aircraft operations in conjunction with the 36th America's Cup races.

Aircraft will be permitted to fly within the America's Cup Airspace provided the pilot has received pre-approval from the administering authority, and the aircraft is flown in accordance with the flight operations procedures specified by the administering authority. These flight operations procedures will include details of how to enter, operate within, and exit the America's Cup Airspace.



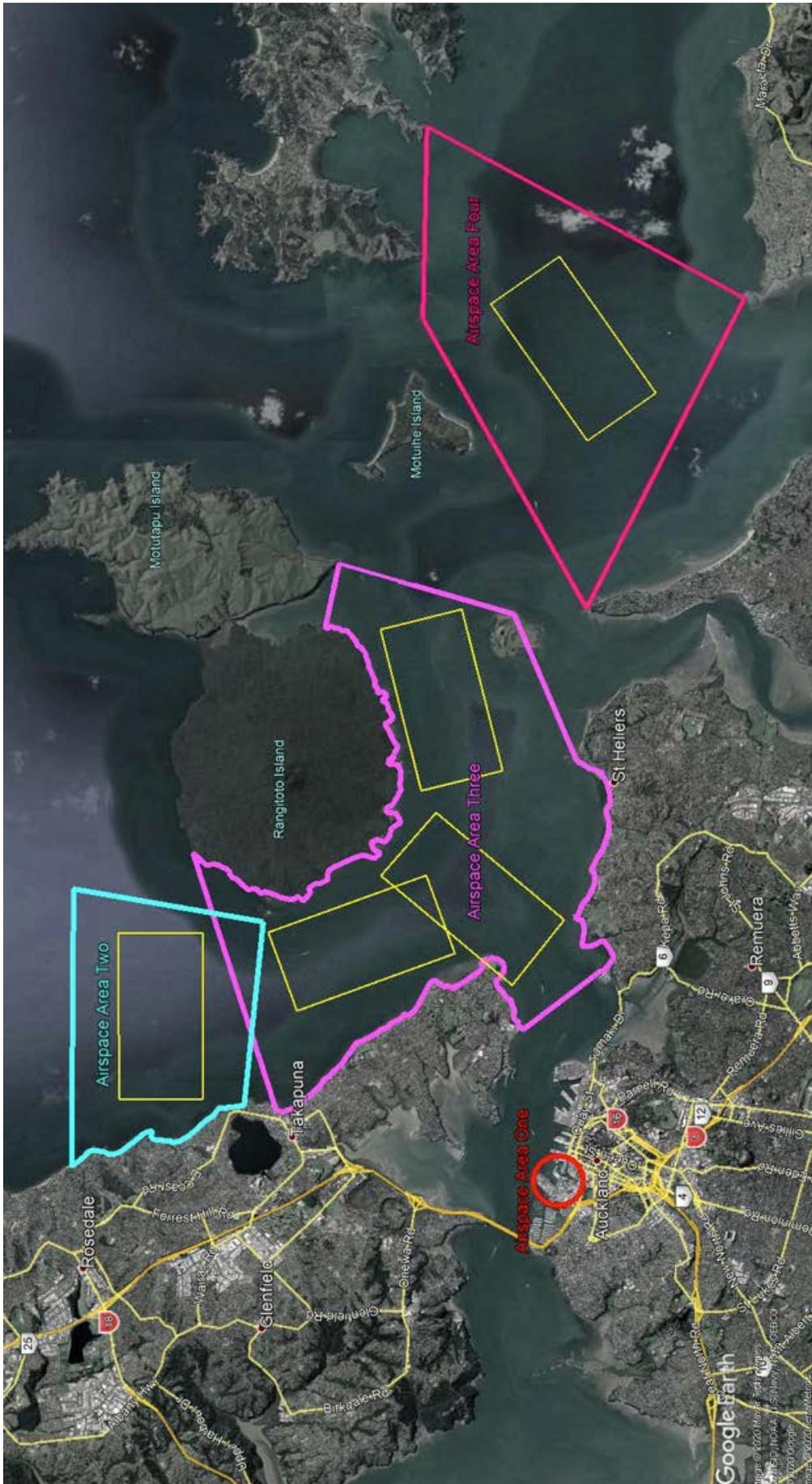


Figure 1 – America's Cup Airspace





All America's Cup Airspace will extend from the surface to 2000 feet above mean sea level (AMSL) and be classified as Class G (uncontrolled) airspace. For the avoidance of doubt, those portions of the Whenuapai control zone or Auckland Traffic Management Authority (TMA) which fall within the America's Cup Airspace shall be classified as Class G airspace when the respective restricted area is active.

Promulgation of Restricted Areas

Details of the restricted areas and flight operations procedures will be published by Aeronautical Information Publication (AIP) Supplement in advance of the event. This is the official aviation process for disseminating information of this nature.

Activation of Restricted Areas

On each race day, immediately upon the Regatta Director selecting which racecourse will be used, the applicable restricted area will be activated by Notice to Airmen (NOTAM). The activation period will be from 30 minutes prior to the First Warning Signal until 30 minutes after the last permitted race finish time.

NOTAM is the official aviation process for disseminating information of this nature. It is

noted that normal practice is for the intention to activate a restricted area to be notified at least 24 hours prior. Provision does exist for less than 24 hours notice however CAA approval of such a process will be required.

Consideration is to be given to establishing a continuous automatic terminal information service (ATIS) type broadcast on an aviation radio frequency to allow pilots in flight to readily establish whether the America's Cup Airspace is active or intending to be activated.

Pilot Registration /Briefing

All pilots wishing to operate within the America's Cup Airspace will be required to contact the administering authority to obtain the America's Cup Briefing Package. This package will include a declaration form to be signed and returned by the pilot confirming they have received, understood, and will comply with the requirements outlined in the Briefing Package.

Upon receipt of the declaration form, the administering authority will allocate the pilot a non-transferable authorisation number which may be asked for to authenticate any request for entry into the America's Cup Airspace.



Operations within America's Cup Airspace

All America's Cup Airspace is classified as Class G (uncontrolled) airspace. Communication will be pilot-to-pilot using a dedicated very high frequency (VHF). Altimeters will be set to the Auckland ATIS QNH (Aeronautical Code Q Code – pressure at sea level).

Two circuit patterns shall be applicable;

- Aircraft at or below 1000 feet AMSL – no speed restrictions or predetermined circuit direction. Limited to helicopter and drone operations by the administering authority and host broadcaster.
- 1,500 feet AMSL – a left hand circuit at a minimum of 20 knots intended air speed (IAS) unless a different speed is approved by the administering authority.

In the event of traffic numbers becoming unmanageable, it may be necessary to introduce a system of slot management at some time during the event. It is not intended to introduce slot management initially.

Failure to comply with America's Cup Airspace procedures may result in termination of pilot approval. Any non-conformity which affects air safety is to be noted by pilots and reported to the administering authority.

Airspace Incursions

If an unexpected aircraft is detected within the America's Cup Airspace the following process will be followed;

1. Aircraft are to manoeuvre to avoid conflict, primarily by following established right of way rules but also taking collision avoidance action if necessary.
2. Notify other pilots of the unexpected aircraft's presence and location via aviation VHF radio.
3. If appropriate, attempt to contact the unexpected aircraft via aviation VHF radio and establish its intentions. It is possible the pilot may still be on the radio frequency of surrounding airspace (120.4 MHz).
4. Notify the administering authority of the presence of the aircraft along with any identifying features and details of its effect on aviation operations within the airspace.
5. Per the C4 platform, the administering authority will notify other agencies of the incursion, and provide any requested information to Crown enforcement agencies considering an escalation of response.



Geofencing and Electronic Charting Updates

When the America's Cup Airspace is officially promulgated by CAA, this will form the basis for a request to DJI (major drone manufacturer) seeking geofencing of the airspace to prevent drones with updated software from entering.

A similar request will be made to OzRunways and AvPlan (main providers of electronic charting software) to include the airspace on their charts as an active warning to pilots operating in the area.

Engagement and Consultation

Dialogue has occurred with affected operators regarding the airspace boundaries, and will continue to ensure that the impact on those not involved with the event is minimised.

The operating procedures within the airspace will similarly be the subject of consultation with the operators to ensure maximum operational flexibility is available whilst also preserving necessary safety margins.

Communications Plan

Those requiring information about America's Cup Airspace can broadly be split into two categories;

Aircraft operators involved with the event	Aircraft operators affected by but not involved with the event
<p>All aircraft</p> <ul style="list-style-type: none"> • Will receive initial information via airspace users group, other operators, aviation associations, AIP Supplement, aviation media. • Once in contact with the administering authority will receive updated information via airspace management process. • Immediate communication during racing will be via aviation VHF radio. 	<p>Manned aircraft</p> <ul style="list-style-type: none"> • Will receive initial information via airspace users group, other operators, aviation associations, AIP Supplement, aviation media. • Will receive initial information via airspace users group, other operators, aviation associations, AIP Supplement, aviation media. • On race day information will be received via NOTAM and possibly ATIS.
	<p>Unmanned aircraft</p> <ul style="list-style-type: none"> • Will receive pre-event information via inclusion of a key message within on-land and on-water communications coverage. Messaging to be that on America's Cup racing days the over water areas around the race course are restricted airspace. No drones other than those operated by the AC36 event are permitted. • On race day information will be received via inclusion of the same key message within on-land and on-water communications coverage. Signage to be placed in public parks adjacent to the harbour prohibiting flights over water. • Immediate communication during racing will be via the same channels as on-water communications coverage. Consideration to be given to carriage of no-drone signs on marshal boats.





AIR OPERATIONS HAZARD IDENTIFICATION AND RISK ASSESSMENT

Nature of Hazard	Risk Level	Nature of Possible Harm	Aim	How is the aim achieved
Collision between aircraft	Low	Possible aircraft accident with personnel on board and on ground receiving injuries.	Minimise	Pre-briefing of pilots, standardised operating procedures, use of radio calls, enhanced see and be seen environment.
Incursion of airspace	Moderate	Need for avoiding action disrupting aircraft circuit patterns. Potentially increased risk of collision.	Minimise	Pre-event communications messaging to reduce likelihood of incursion, geofencing, operational guidelines developed for use if it occurs, escalation to enforcement agencies if necessary.
Aircraft malfunction necessitating emergency landing	Low	Personnel injuries.	Isolate	Pilots to ensure emergency landing can be conducted without hazard to persons or property on the surface.
Changing weather conditions leading to degraded visual environment	Moderate	Controlled flight into terrain. Potentially increased risk of collision.	Minimise	Pilots to utilise pre-flight weather information and monitor conditions during flight, use of radio calls, if cloud base is below 1500 feet that circuit pattern becomes unavailable.
Collision with vessels on the surface	Low	Possible aircraft accident and injuries to personnel on the ground.	Isolate	Limited exposure, only relevant to aircraft operating below 1000 feet. Drone operations are within the race course area and are to be conducted with lateral separation from race yachts. Helicopter operations to be conducted above the mast height of surrounding vessels.



Nature of Hazard	Risk Level	Nature of Possible Harm	Aim	How is the aim achieved
Loss of communications	Low	Potentially increased risk of collision.	Minimise	Have secondary frequency available for use in case of interference or jamming by stuck microphone. Any aircraft experiencing radio failure to vacate the airspace.
Overseas pilots operating in airspace	Moderate	Lack of familiarity with local geography, misunderstanding of radio calls due to language barriers.	Minimise	Pre-briefing of pilots, local pilots to exercise courtesy and airmanship.
Unanticipated demand for access to airspace	Low	Circuit pattern becoming unworkable due to volume of aircraft with corresponding increase in collision risk.	Minimise	Below 1000 foot circuit pattern reserved for operations by administering authority/host broadcaster only. Provision to establish slot management system for 1500 foot circuit pattern if necessary.



Input to C4 Platform

A person with suitable knowledge of aviation operations associated with major events will be available to provide input to decision making by the C4 platform being established for the event.

Contingency Procedures

It may be necessary for emergency services and military aircraft to enter the America's Cup Airspace at short notice, either whilst responding to an event associated with the event or whilst responding to an emergency elsewhere. Protocols are to be established with these operators to afford them priority of access should it be required. This will include availability of the instrument flight procedures supporting Auckland Hospital.

Mechanics Bay Heliport

The America's Cup Airspace has been designed to ensure helicopter operations at Mechanics Bay can continue with minimum disruption. Details of the airspace boundaries are to be provided to the heliport operator for inclusion in any briefings they provide to visiting pilots.

Auckland Harbour Aerodrome (Water)

Whilst the America's Cup Airspace has been designed to ensure minimal disruption to seaplane operations at the Auckland Harbour Aerodrome, in certain wind conditions the airspace area in the vicinity of Devonport Wharf/ Orakei Marina affects departing aircraft. A protocol will be established with the seaplane operator to address this.



APPENDICES

- 1.0 Airspace boundary descriptions
- 2.0 America's Cup Briefing Package for Pilots – 1 September 2002
- 3.0 America's Cup planning document – July 2000



1.0 Airspace boundary descriptions

Airspace Area One			
A circle of radius 0.3 nm centred on 365027.12S 1744529.85E			
Airspace Area Two			
An area contained within a line joining;			
Campbells Bay	364438.81S	1744540.05E	GRC
	364439.14S	1744949.36E	GRC
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Crusoe Rock	364845.93S	1745824.00E	GRC
Kennedy Point	364847.66S	1740117.35E	GRC
Motukaraka Island	365235.62S	1745845.14E	GRC





America's Cup Briefing Package for Pilots

This Briefing Package has been approved by the Civil Aviation Authority of New Zealand to be used as the pre-flight and airborne reference guide to pilots specifically approved to use the America's Cup Restricted Airspace during the period of the America's Cup event, from 1st October 2002 to 6th March 2003.

This Briefing Package has been prepared by Airways Corporation on a best endeavours basis, and with input from AC2003 Limited and CORM - Challenger of Record Management for America's Cup XXXI (NZ) Ltd. Whilst every care has been taken in the preparation of this document, no warranty is given as to the accuracy of its content.



1 September 2002



America's Cup Procedures

The following America's Cup procedures have been developed over four years of consultation with industry. Airways Corporation of NZ Ltd, through Whenuapai Control Tower ("Cup Base") is the controlling authority for Restricted Areas NZR190 and NZR191.

Pilot Approval

Pilots will not be permitted to enter America's Cup Airspace unless they are 'approved'. *The approval process requires each pilot to be in possession of this America's Cup Briefing Package compiled by the Controlling Authority, and to **sign and return the declaration form** at the end of this America's Cup Briefing Package.*

This declaration form confirms that you have received, understood, and will comply with the requirements outlined in this America's Cup Briefing Package. Pilots must understand that this America's Cup Briefing Package is in addition to, and not instead of, any other responsibilities or obligations that they may be subject to, in relation to participating in this America's Cup event. Those responsibilities would include any obligations under the Civil Aviation Act 1990 and Civil Aviation Rules, NZAIP, and other applicable legal requirements.

Pilots must also understand that they are responsible for fully briefing their second pilot or observer on the contents of this America's Cup Briefing Package.

* * * * *

A non-transferable authorisation code will be allocated to you on receipt of your confirmation form. Please write your authorisation code in the box below for quick reference. You may be asked for this reference number to authenticate your request for entry into restricted airspace.

225

Your reference number
For general enquiries contact:

**The
America's Cup Airspace Controlling Authority (Cup Base)**
at:

*The Control Tower, RNZAF Base, Auckland
Private Bag, Whenuapai 1250
phone number: (09) 417 7421
fax number: (09) 417 7873*

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Definitions

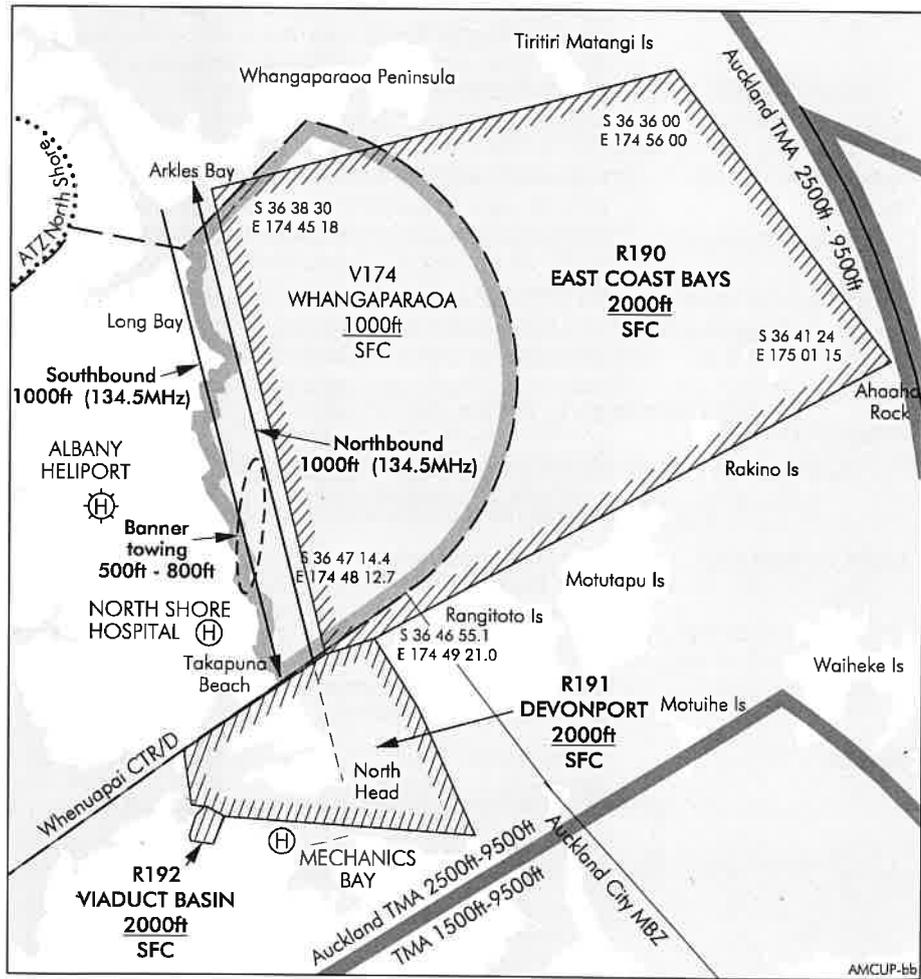
Approved Pilot	A licensed pilot who has received and acknowledged this America's Cup Briefing Package, has returned it to the Controlling Authority signed as agreeing to comply with all procedures, (and who has thus been accredited), and, where deemed necessary, received a briefing on the Event area procedures.
AMSL	Means above mean sea level.
America's Cup Airspace	Restricted and VFR transit areas (as outlined on the map at page 4) established for the purposes of yacht racing as part of the Event comprising NZR190 and NZR191, under the management of Airways.
America's Cup Match	The competition between the winner of the Louis Vuitton Cup and the America's Cup defender known as America's Cup XXXI.
Event Organiser	CORM - Challenger of Record Management for America's Cup XXXI (NZ) Limited, in relation to the Louis Vuitton Cup and AC 2003 Limited, in relation to the America's Cup Match.
Louis Vuitton Cup	The challenger selection races for America's Cup XXXI known as the Louis Vuitton Cup from commencement of Round Robin 1 to the completion of the Louis Vuitton Cup Final.
The Event	The Louis Vuitton Cup and/or the America's Cup Match as the context may require.
Yachts	Those yachts directly involved in The Event, racing practicing or travelling between berths and the relevant racecourse or practice area (as the case may be).



Restricted Areas

America's Cup Airspace will be comprised of the following Restricted Areas:

**NZR190 and
NZR191 (as shown below)**



NZR190 East Coast Bays

All that portion of the Whenuapai control zone within Restricted Area NZR190 when active, shall be classified as class G (uncontrolled) airspace.

The schedule of the race days is attached to this document and NZR190 activation shall be required on each race day. NZR190 non-activation **days** will be advised by NOTAM with at least 6 hours notice.

Specific activation **times** on those days will be advised with a general notification on frequencies 130.1/130.2 MHz, and on the Whenuapai ATIS (128.3 MHz) with at least one hours notice prior to the commencement of the first race.

NZR190 will *normally* be deactivated 10 minutes after completion of racing. The upper limit of NZR190 will be 2,000ft AMSL during conditions that permit VFR flight.

In conditions where the cloudbase does **not** permit VFR flight in the NZR190 upper level, the Controlling Authority may elect not to use the 1500ft patterns to permit unrestricted IFR flight to and from Whenuapai. (see page 8)

This Temporary Restricted Area is prescribed to facilitate the safety of air navigation and is as follows:

Upper limit: 2,000ft AMSL; or when the cloudbase within NZR190 does not permit a higher upper limit: 1,000ft AMSL or as advised by the Controlling Authority.

Lower limit: Surface.

Activity: Activated by NOTAM and WP ATIS (128.3 MHz) between: 0209301900 until 0303060900 (0700 NZST, 01 OCT 2002 until 2200 NZDT, 06 MAR 2003 or for such further period, if the Event is delayed for any reason.)

Controlling Authority: Airways Corporation (Whenuapai Tower "Cup Base"). There will be two circuit patterns (dependent on demand and cloudbase) within NZR190 to accommodate VFR traffic overhead the racecourses as follows:

aircraft at or below 1,000ft AMSL - no speed restrictions or predetermined circuit direction (limited to host broadcaster and accredited Event Organiser and still photographer helicopter operations); with the provisos that:

- The host broadcaster helicopter will remain outside a 500ft hemisphere from the Yachts and the Event Organiser and still photographer helicopters will not operate below 700ft AMSL.
- The host broadcaster helicopter may occasionally rise to 1,000ft AMSL. Prior to such ascent, the host broadcaster helicopter must be in communication with the other still photo helicopters to ensure that the proposed ascent can be made safely.
- All helicopters must maintain a lateral separation of at least 600ft from the Race Committee boat and all race marking buoys and there is to be no hovering over the Race Committee boat or any race marking buoys by any helicopter.
- Effective two way radio communication between the host broadcast helicopter and still photo helicopters is paramount.

1,500ft AMSL - a maximum of 18 aircraft flying a left hand circuit at a minimum of 20 knots IAS unless a different speed is approved by the Controlling Authority (generally limited to accredited commercial, media or official helicopters and fixed wing private/commercial aeroplanes).

Even though up to 18 aircraft are permitted at each level, NZR190 has a theoretical simultaneous total capacity of 35 aircraft.



NZR191 Devonport

NZR191 activation is only expected to be during January, February and March 2003 for short periods, but may be occasionally necessary at other times when the traffic density of aircraft following transiting Yachts reaches a level where restrictions are necessary.

This Temporary Restricted Area is prescribed to facilitate the safety of air navigation and is as follows:

Upper limit: 2,000ft AMSL.

Lower limit: Surface.

Activity: Activated by NOTAM and WP ATIS (128.3 MHz) between 0209301900 until 0303060900 (0700 NZST, 01 OCT 2002 until 2200 NZDT, 06 MAR 2003 or for such further period, if the Event is delayed for any reason).

Controlling Authority: Airways Corporation (Whenuapai Tower "Cup Base").

The same levels and aircraft altitudes as for the NZR190 circuits will be used for NZR191, except aircraft will not be required to fly a circuit or at a particular speed.

There will be a maximum of 6 aircraft operating at each level within NZR191 but no more than a total of 11 aircraft at any one time.

Military helicopters operating to and from Devonport will be issued NZR191 entry approval, provided there is prior notification of flight to the NZR191 Controlling Authority. Military helicopters must report prior to take off from Devonport or entry to NZR191 on 130.1 MHz, and a minimum vertical or horizontal distance of 1,000ft (300 metres) is maintained from Yachts.

Even though up to 6 aircraft are permitted at each level, NZR191 has a theoretical simultaneous total capacity of 11 aircraft.



NZR192 Viaduct Basin, Auckland

This Restricted Area will be continuously active. Aircraft will not be approved to enter NZR192, except in an emergency.

Upper limit: 2,000ft AMSL

Lower limit: Surface.

Activity: Active between 0209301900 until 0303060900 (0700 NZST, 01 OCT 2002 and 2200 NZDT, 06 MAR 2003).

Controlling Authority:

AC 2003 Limited, PO Box 91499, Auckland Mail Centre, telephone (09) 363 6900, **and** America's Cup Village Ltd; PO Box 90343, Auckland Mail Centre, telephone (09) 377 4226.

Whenuapai control zone VFR transit procedures

NZV174, between the western boundary of NZR190 and the East Coast Bays, is available for northbound and southbound transits. Pilots should be aware there may be banner towing aircraft operating off the coast between 500 and 800ft AMSL. Transiting pilots are advised to broadcast their intentions on frequency 134.5Mhz as they leave the Auckland MBZ northbound or passing Whangaparaoa southbound.



General Requirements

Operations within NZR190/NZR191 are subject to the following requirements:

- The pilot in command is an Approved Pilot.
- The pilot in command shall ensure that any display of advertising is subject to accreditation by the relevant Event Organiser. No photographic equipment shall be carried if it is deemed by the Event Organiser to have the effect of competing with the licensed broadcaster.
- No banner towing aircraft, paragliders, parasails, hang gliders, balloons, kites or gliders are permitted.
- Altimeters shall be set to the Whenuapai QNH.
- Aircraft must be flown within 100ft of the assigned altitude unless approved by "Cup Base", and not above 1,500ft at the highest level.
- Pilots of the host broadcast helicopter shall remain outside a 500ft hemisphere from the Yachts, and pilots of the Event Organiser and still photographer helicopters will not operate below 700ft AMSL (unless otherwise approved by "Cup Base").
- Pilots shall operate their aircraft in accordance with level, speed and direction of pattern requirements set out in this America's Cup Briefing Package.
- Aircraft shall be operated by two pilots or a pilot and an observer unless there are no more than three other aircraft at that level. Observers shall have no other technical duties (such as professional camera operation) while within NZR190.
- Aircraft shall be operated with landing lights or anti-collision lights switched on.
- The minimum equipment for entry into and operation within NZR 190/191 shall be two serviceable VHF radios.

Once entering the America's Cup Airspace:

- turn their **transponder OFF**; enter the 'circuit' or 'pattern' in accordance with the procedures on page 9; and
- operate with landing lights or anti-collision lights switched on; and
- aircraft shall be flown at or within 100ft of the assigned slot altitude, unless approved by the Controlling Authority, but not above 1,500ft AMSL at the highest level (see page 9); and
- pilots, (except those flying for the host broadcaster, Event Organiser or accredited still photographer), shall not approach any Yachts closer than 1,000ft AMSL without the Controlling Authority's prior approval; and
- pilots shall operate their aircraft in accordance with level, speed and direction of pattern requirements (see page 9); and

After vacating America's Cup Airspace:

- pilots should switch their **transponder ON**, change to the appropriate frequency (see 'Radio Procedures' page 12).

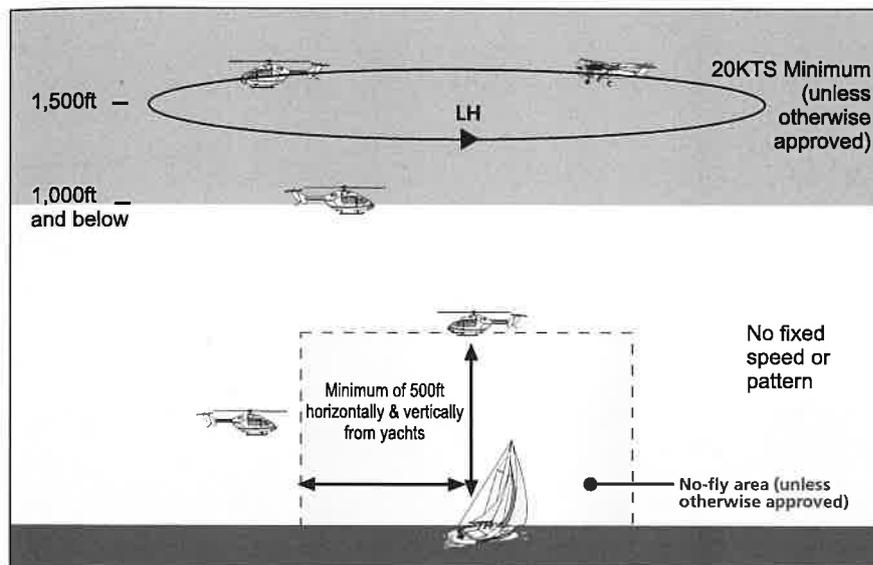
8



Pattern Procedures

Pilots shall approach the circuit from the outside and merge safely into the circuit. If required, to avoid collision, a short transmission to adjacent circuit traffic advising them of entry should be made on 130.1 MHz.

Restricted Area Patterns



Only one circuit is to operate at each level. Special care must be taken at those times when, due to the divergence of Yachts/races, the circuit area and dimensions of the circuit may vary. The same applies when Yachts/races converge.

Except for those authorised to operate at 1,000ft AMSL or below, all aircraft are to conform to the circuit direction i.e. **NO ORBITS**. Any overtaking manoeuvres are to be completed **clear** and **outside** of other circuit traffic.

(The theoretical maximum number of aircraft operating in NZR190 is 35, spread between the various levels in the patterns at any one time.)

Aircraft are to remain at their assigned levels at all times when established in the areas, namely there are to be **NO** variations to allocated altitudes, except that subject to authorisation by "Cup Base" and traffic permitting, a climb to a higher level may be executed **provided**:

- the aircraft breaks circuit, and
- proceeds at the last assigned level to the east, and
- well clear of all circuit traffic at all levels, climbs to the new level, and
- returns to rejoin that circuit at the higher level. This higher level becomes the assigned level.

Under NO circumstances will descent to lower levels be permitted within NZR190 or NZR191 unless authorised by "Cup Base".



Services in NZR190 and NZR191

The Controlling Authority (callsign "Cup Base") will monitor frequency 130.1 MHz to provide the following:

- activation and deactivation of Restricted Areas NZR190 and NZR191; and
- the Whenuapai or Auckland QNH, as applicable; and
- instructions on circuit patterns or variations thereto when necessary; and
- entry/exit procedures and entry approval for aircraft when required; and
- instructions to aircraft within the circuits to vacate America's Cup Airspace if necessary; and
- monitoring to ensure the maximum number of aircraft is not exceeded; and
- co-ordination with Whenuapai and Auckland ATC units; and
- emergency assistance to aircraft when practicable.

Frequency 130.1 MHz shall be used by all aircraft operating within NZR190 and NZR191 for Cup Traffic communications (see page 12).

"Cup Base" will NOT provide aircraft separation in the America's Cup Airspace. Traffic information will only be given in an emergency when considered necessary in the interests of safety.



Slot Management

In the event of traffic numbers in NZR190 or NZR191 becoming unmanageable, it may be necessary to introduce a system of slot management at some time during the Event. It is not intended to introduce slot management initially.

NOTE:

- CAA will be monitoring aircraft conformance.
- Failure to comply with America's Cup Airspace procedures may result in a termination of pilot approval. This may effect participation in other Auckland "Special Events".
- Any non-conformity which affects air safety is to be noted by pilots and reported to "Cup Base", preferably by telephone but if necessary on 130.2 MHz or 130.1 MHz.
- Approval to operate in America's Cup Airspace may be immediately withdrawn by the relevant Event Organiser, the Controlling Authority or CAA for non-conformances with the above.



Radio Procedures

NZR190/191:

Prior to entry for NZR190/ NZR191, report aircraft callsign, entry point and altitude to the Controlling Authority on frequency 130.2 MHz:

"Cup Base, [callsign], [position], [altitude], [QNH]";
and

change to frequency 130.1 MHz, and report:

"Cup Traffic [callsign], [altitude]";

On vacating NZR190/191, report aircraft callsign on frequency 130.1 MHz:

"Cup Traffic [callsign] vacating";
and

advise the Controlling Authority on frequency 130.2 MHz:

"Cup Base, [callsign], [position], vacating [intentions]";
and

change to the appropriate frequency as below

NZR192:

DO NOT ENTER THIS AREA

After vacating the America's Cup Airspace

Having advised cup traffic on 130.1 MHz and "Cup Base" on 130.2 MHz that you have vacated, contact either:

- 120.4MHz (Auckland MBZ),
- 118.0 (North Shore Traffic), or
- 118.5MHz (Flight Information) frequency as appropriate.

ATIS information available

Whenuapai aerodrome ATIS will broadcasting on frequency 128.3MHz and include the status of the Restricted Areas when they are active.



Emergency Procedures

please read these notes before you may need them!

- No aircraft shall enter Restricted Areas NZR190/ NZR191 when they have a known two-way VHF radio failure. Any aircraft within the NZR190/NZR191 with a known radio failure shall vacate the circuit as soon as practicable.
- In the event of an emergency, pilots should squawk the international transponder code, (7500 for unlawful interference, 7600 for communications failure, and 7700 for emergency).
- Any aircraft suffering an emergency situation within the NZR190/NZR191 circuits shall depart the circuit by the most expeditious means practicable, so as to not endanger other aircraft operating within or entering the circuits.
- Pilots are reminded to broadcast a "Mayday" or "Pan" call as applicable in these circumstances to "Cup Traffic" on frequency 130.1 MHz. ("Cup Base" will be monitoring this frequency.)
- In the event of an aircraft blocking frequency 130.1 MHz, aircraft should change to frequency 130.2 MHz while the interference continues.
- **In the event of an RNZAF aircraft in emergency** requiring all or part of the Restricted Area(s) aircraft may be advised by "Cup Base" to vacate the area they are operating in.
Those aircraft which are required to vacate the Restricted Area(s) shall establish in an area/orbit over **Rangitoto, Mototapu and north of the northern tip of Motuihe Islands, clear of the Auckland TMA.**
- The police may require an area to be vacated by aircraft because of an incident. Aircraft shall be instructed to hold clear of the incident by at least 1,000ft AMSL and a half nautical mile.



3.0 America's Cup planning document – July 2000



America's Cup planning document

July 2000

Civil Aviation Authority



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S-S360-02/2 (DW1017099-0)

Review

Background

The America's Cup Challenger and Cup Defence races were held in Auckland between October 1999 and March 2000. The America's Cup event had two main organisations or Event Organisers. The challengers were represented by the America's Cup Challenge Association (ACCA), and the defenders were represented by America's Cup 2000 (AC2000), a subsidiary of Team New Zealand.

CAA role

The CAA's main role was to determine airspace requirements for safety of aviation or in the public interest, and to set in place such requirements after consultation. CAA staff involved in the planning for this event (John Fogden, Terry Knight and Len Wicks) met on Tuesday 11 April 2000 to review the event and to recommend amendments to the next event procedures as a result of lessons learnt.

User assessment

Legislation and accreditation

Special legislation (an amendment to the Civil Aviation Act 1990) was introduced for the purpose of "protecting" the Event Organiser's main sponsors, but of course this could not stop the use of high-power state-of-the-art camera platforms in the air or on the surface. The effectiveness of this legislation was considered to be limited because the restricted areas are unlikely to be designated to such high levels for future events due to low air traffic volumes. There would continue to be a ban on banner towing within the restricted area for safety reasons so the review team did not recommend the use of special legislation in the foreseeable future.

This would greatly simplify the briefing of pilots, allow aircraft not associated with the event to pass through the airspace without hindrance and reduce the costs to the Event Organiser of providing an accreditation system.

Pilot approval system

This system was used to ensure that pilots were adequately briefed to enter and operate within the restricted airspace. The system was considered to be effective and the Airways briefing document had many favourable comments.

It is recommended that a future pilot approval system require compulsory subscription to the CAA notification system to ensure pilots are kept up to date with any developments. The possibility that this system could be better named was considered but without an accreditation system there may be less confusion between the accreditation and the pilot approval system in future.

6 July 2000

Page 1
July 2000



Information

CAA web site

The web site material for the America's Cup had good feedback and the notification service was a good means of getting information to those who wanted it. The notification service would remain to allow effective future consultation and the 1999 AIP Supplement information would be archived under "Airspace Information" as a basis for future events.

America's Cup "ATIS"

This facility was good although it must be stressed that it is operated even when the restricted airspace is not active to ensure pilots are aware of airspace status. This was not the case until the Match itself for this year's event.

Whenuapai Tower

The restricted area controlling authority (Cup Base) staff operated a good service although access to staff was still an issue. Cup Base operated an answer machine with a message advising pilots to send a facsimile so there was no direct communication for pilots with Cup Base. This was inefficient, considering the lack of heavy traffic through the event. The next event's controlling authority should be more easily contactable, ideally at the same site.

Airspace

Airspace dimensions

NZR190 (East Coast Bays) will possibly need a small eastern extension to The Noises to encompass aircraft following multiple challenger courses. The western boundary should also be moved east to allow a narrow portion of the normal VFR transit lane through the Whenuapai control zone to remain. This would allow aircraft not involved in the event to transit without designating a temporary transit lane.

The upper limit of NZR190 should be reduced to 2,000 feet to encompass only two levels (1,000 feet or below and 1,500 feet), due to the lack of air traffic. The reduction in upper limit should, with the western boundary amendment, allow Whenuapai aircraft more freedom of movement than during this event and temporary IFR procedures may become unnecessary. This will also allow transiting aircraft to overfly the restricted airspace below the controlled airspace lower limit.

It is considered there is no need to designate NZR191 (Devonport) in future for transiting yachts as it was not activated for this event. Pilots should be reminded in the briefing package that extra traffic movements can be expected near the finals following yachts to and from the Viaduct basin. There is also a consideration to extend NZR190 southward to encompass Rangitoto Channel and Devonport itself to reduce the level of air traffic noise operating in the area. This extension should not be further south than the naval base.

NZR192 (Viaduct basin) appeared to work well as a restricted area with prohibited qualities. No boundary changes are proposed but a reduction in the upper limit is possible to 2,000 feet for overflying traffic and to make this level consistent with NZR190.



Airspace patterns

It is proposed that the circuit procedures in terms of direction and speed should remain unchanged. Likewise, the procedures to change level between the 1,000 and 1,500 feet circuits by vacating the pattern, then changing level, then rejoining the pattern should remain unchanged.

The 1,000 feet and below pattern evolved during the regattas as two different types of operation. Host broadcast helicopters would manoeuvre between 1,000 feet and the surface, dependent upon approval by the Principle Race Officer. Other aircraft would operate in a band between 1,000 and 800 feet with normally no more than three aircraft as low as 800 feet, which was decided by direct communication between the aircraft involved.

Some concern was expressed that more than one pattern at 1,000 feet occurred at times during the Louis Vuitton Cup due to more than one course being used, notwithstanding instructions in the Pilot Briefing Package to the contrary. It is proposed that further dialogue be held with the Event Organisers and the User Group regarding this issue, but two possible solutions were:

1. consideration of consequent aircraft patterns by the Event Organisers when setting courses to ensure there is adequate separation of adjacent patterns; and
2. use of a different level such as 800 versus 1,000 feet for adjacent patterns (the use of an 800 feet level will require variation of the "1,000 feet from yachts" procedure).

During the Match a procedure was developed that allowed the Principle Race Officer to disestablish the 1,000 feet and below circuit pattern for all aircraft except the Host Broadcaster when the winds were sufficiently light to allow significant noise and/or downwash from helicopters. This was considered to be an effective procedure which should be continued for the next event.

Slot management

The slot management system to ensure maximum specified numbers was not considered necessary because of the lack of heavy air traffic at the first Auckland event. This can always be re-instated if there is an unforeseen surge in aircraft numbers. In general, with the advent of the *Virtual Spectator* allowing people to follow races on their computers and the ability for spectators to see the race from marine vessels, the likelihood of heavy air traffic for America's Cup events in future is not high.

A maximum of eighteen aircraft at each level as a condition of the airspace designation was specified previously. There is probably no need to specify a designated maximum number per se, as the controlling authority can monitor the numbers on a day to day basis and if the numbers unexpectedly rise above what is considered to be safe levels (using the previous benchmark) at any one level then restrictions can be imposed on additional aircraft entry at that level.

Airspace activation

This appeared to work well and with better use of the "ATIS" should be operated in the same manner for the future.



Aircraft procedures

Two pilot operations

The requirement to use two pilots or one pilot and an observer should be retained in the interest of safety for future events.

Transponders

It is possible that technology will change the effectiveness of ACAS/TCAS (Traffic Collision Avoidance System) within a confined area with multiple aircraft, but it is considered that the current procedure of turning off transponders within the restricted area should be retained unless the providers of the Cup Base service require this information.

Radio requirements

Reporting requirements should be simplified by using the primary frequency (130.1 MHz) for both inbound/outbound reports as well as within the restricted area and reserving the secondary frequency (130.3 MHz) for situations such as a jammed transmitter or general airborne enquiry.

Some clarification of radio requirements is necessary to allow the hand carriage of a second radio for redundancy purposes. This secondary radio will only be used in the instance of a primary radio failure to depart the restricted airspace safely or to detect that the primary radio has failed in the first place.

Banner towing

It was noted that there had been very little banner towing in the designated banner towing area east of Takapuna, with most operations being over the city itself. The designated area did not cause any known problems so should remain in case it needs to be used in future. Banner towing aircraft should continue to be prohibited from the restricted area for safety reasons. Some concern was raised about the size of the banners towed by helicopters but this would be addressed by a change to Civil Aviation Rules.

Other aircraft

Paragliders, parasails, hang gliders, balloons, kites and gliders should continue to be prohibited from the restricted area for safety reasons.

Recommendations

The following recommendations are made as a result of the America's Cup review:

1. that a recommendation to the Ministry of Transport be sent from the Government Relations Group that special legislation should not be required for the forthcoming America's Cup event;
2. that this report and the proposals contained herein be distributed to the Event Organisers, Auckland Airspace Users Group and Airways Corporation of NZ as a first step for consultation for the 2002/2003 regattas.



Appendix 1: Draft AIP Supplement

XX/02

Auckland America's Cup aviation procedures Effective: August 2002

Background

The America's Cup Challenger and Cup Defence races will be held in Auckland between October 2002 and March 2003. This AIP Supplement details special America's Cup procedures.

Pilot approval

Pilots will **not** be permitted to enter the restricted areas detailed in this AIP Supplement unless they are "approved". The approval process requires each pilot to request the America's Cup briefing package compiled by the Controlling Authority, and to return the signed confirmation document. This document confirms that the pilot has received, understood, and will comply with the requirements outlined in the package. It is imperative for any pilots who may wish to enter America's Cup airspace to contact the Controlling Authority at the earliest opportunity for the America's Cup briefing package. The briefing package may be obtained by contacting the Controlling Authority after 01 July 2002:

America's Cup airspace Controlling Authority
Whenuapai Tower
RNZAF Base Auckland
Private Bag
Whenuapai 1250

Further information

Further information regarding America's Cup airspace is available on the CAA web site at <http://www.caa.govt.nz> under "America's Cup". An automatic update and advisory service for the America's Cup airspace is available from this web site under **Notification Service**.

Restricted areas

It should be noted that the following temporary restricted area requirements, and in particular entry approval, take precedence over the requirements for coincident portions of the Whangaparaoa victor (NZV174) and the Auckland MBZ (NZC118).

All that portion of the Whenuapai control zone within restricted area NZR190 when active, shall be classified as class G (uncontrolled) airspace. Temporary restricted areas are prescribed to facilitate the safety of air navigation as follows:

NZR 190

Upper limit:
Lower limit:
Activity:

East Coast Bays, Auckland

2,000ft AMSL.
Surface.
Activated by NOTAM and Cup ATIS (124.6 MHz) between 0209301900 until 0303100900 (0700 NZST, 01 October 2002 until 2200 NZDT, 10 March 2003); America's Cup.
Controlling authority: Airways Corporation of New Zealand; Whenuapai Tower, telephone (09) 417 7421, frequency 130.1 MHz



NZR 192

Viaduct Basin, Auckland

Upper limit:

2,000ft AMSL.

Lower limit:

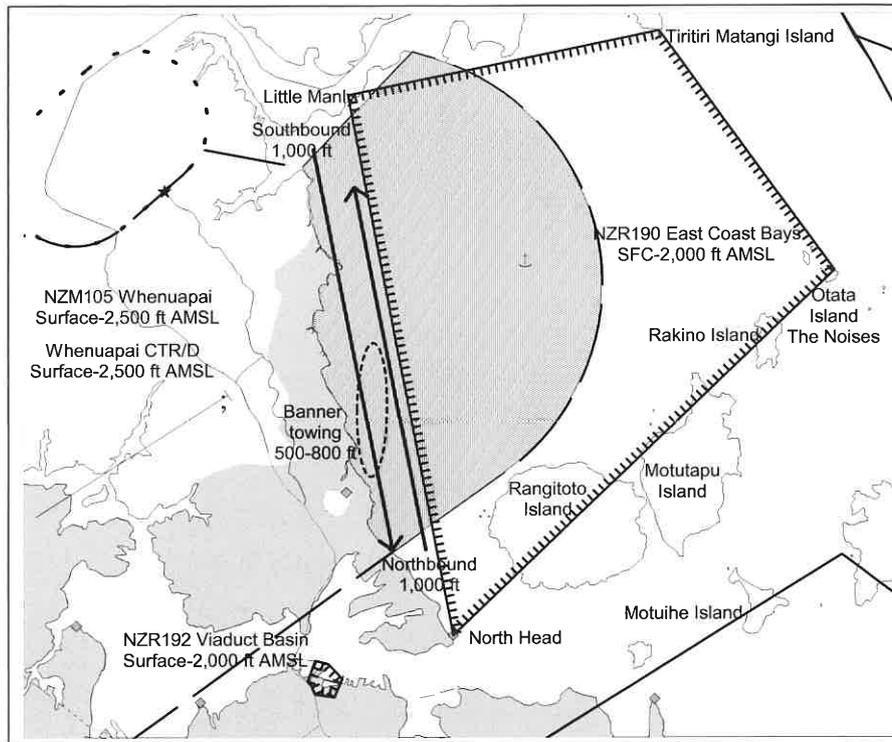
Surface.

Activity:

Active between 0209301900 until 0303100900 (0700 NZST, 01 October 2002 until 2200 NZDT, 10 March 2003); America's Cup.

Controlling authority:

America's Cup Village Ltd; PO Box 90343, Auckland Mail Centre, telephone (09) 377 4226.



NZR190 Controlling Authority

The Controlling Authority (callsign "Cup Base") is not an air traffic service, no traffic information will be provided. Cup Base will monitor frequency 130.1 MHz (secondary frequency 130.3 MHz) to provide the following:

1. activation and deactivation of restricted area NZR190;
2. the Whenuapai QNH;
3. instructions on circuit patterns or variations thereto when necessary;
4. entry/exit procedures and entry approval for aircraft when required;
5. instructions to aircraft within the circuits to vacate the restricted areas, or approval to vary the slot time already agreed;
6. monitoring to ensure traffic numbers do not exceed safe levels;
7. co-ordination with Whenuapai and Auckland ATC units; and
8. emergency assistance to aircraft when practicable.

NZR190 restricted area requirements

Operations within NZR190 are subject to the following requirements when active:

1. entry approval by the Controlling Authority to an approved pilot;
2. no banner towing aircraft, paragliders, parasails, hang gliders, balloons, kites or gliders are permitted;
3. pilots shall set their altimeters to the Whenuapai QNH, as received on the Whenuapai ATIS (128.3 MHz), or the Cup ATIS (124.6 MHz);
4. pilots shall not approach yachts directly involved in the America's Cup, closer than 800 ft vertically or horizontally without the Controlling Authority's approval;
5. pilots shall operate their aircraft in accordance pattern requirements set out in the America's Cup briefing package;
6. aircraft shall be operated by two pilots or a pilot and an observer, unless there are no more than three other aircraft at that level. Observers shall have no other technical duties (such as professional camera operation) while within NZR190;
7. aircraft shall be operated with landing or anti-collision lights on;
8. aircraft shall be operated with two serviceable VHF radios, one of which may be a hand-held radio; and
9. pilots shall report on frequency 130.1 MHz as follows:
 - prior to entry for NZR190, report aircraft callsign, entry point and altitude: "**Cup Traffic**, [callsign], [altitude], [QNH]"; and
 - at expiration of slot time, aircraft callsign on frequency 130.1 MHz: "**Cup Traffic** [callsign] vacating".

The QNH should be determined from the Whenuapai ATIS (128.3 MHz) or Cup ATIS (124.6 MHz) before reporting to the Controlling Authority. If the QNH has changed, the Controlling Authority will advise.

All airborne requests for slots and enquires prior to entry should be directed to the Controlling Authority on secondary frequency 130.3 MHz. Pilots should ensure that transponders are switched off while within NZR190. After clearing NZR190, pilots



should switch on their transponder, change to either frequency 120.4 MHz (Auckland MBZ) or 118.5 MHz (Flight Information Centre) as appropriate.

There will be two traffic patterns (dependent on demand and cloudbase) within NZR190 to accommodate VFR traffic overhead the racecourses with the lower pattern being generally reserved for media operations as follows:

1. at or below 1,000ft AMSL, with no speed restrictions or predetermined pattern; and
2. at 1,500ft AMSL flying a left hand pattern, at a minimum of 20 knots IAS.

Airspace activation

NZR190 activation **days** will be advised by NOTAM with at least 24 hours notice. Specific activation **times** on those days will be advised with a general notification on frequencies 130.1 MHz and Cup ATIS (124.6 MHz) with at least 10 minutes notice as the first yachts* are about to enter NZR190. NZR190 will normally be deactivated as the last yachts* leave NZR190.

NZR192 Viaduct basin

This restricted area will be active continuously. Aircraft may enter NZR192, except in emergency circumstances.

Emergency procedures

No aircraft shall enter restricted areas NZR190 when they have a known two-way VHF radio failure. Any aircraft within NZR190 with a known radio failure shall immediately vacate the circuit as soon as practicable.

In the event of an emergency, pilots should squawk the international transponder code, (7500 unlawful interference, 7600 communications failure, 7700 emergency).

Any aircraft suffering an emergency situation within the NZR190 patterns shall depart the circuit by the most expeditious means practicable, so as to not endanger other aircraft operating within or entering the circuits. Pilots are reminded to broadcast a "Mayday" or "Pan" call as applicable in these circumstances to "**Cup Traffic**" on primary frequency 130.1 MHz.

In the event of an aircraft blocking primary frequency 130.1 MHz, aircraft should change to secondary frequency 130.3 MHz while the interference continues.



Transit procedures

Transiting aircraft may operate in that portion of the Whangaraoa VFR transit lane which is not part of NZR190. Northbound aircraft should generally transit along the coast and southbound aircraft should transit seaward of the coast. Transiting pilots are reminded of the requirement under rule 91.311 *Minimum heights for VFR flights* to maintain a minimum altitude of 1,000ft above built-up areas (the upper limit of the VFR transit lane is 1,100ft AMSL).

Transiting aircraft may also overfly NZR190 when active at 2,000 ft or above (the lower limit of controlled airspace in this area is 2,500 ft). Northbound aircraft should be aware there may be banner towing aircraft operating off the coast between 500 and 800ft AMSL.

Prescribed pursuant to Civil Aviation Rule Part 71 *Designation of Airspace*, under a delegated authority issued by the Director of Civil Aviation.



NZR 190 East Coast Bays, Auckland

All that airspace bounded by a line joining S 36 36 34.8, E 174 53 52.9 (South Point, Tiritiri Matangi); S 36 41 41.5, E 174 58 34.7 (Otata Island); S 36 49 44.7, E 174 48 46.7 (North Head); S 36 38 11.5, E 174 45 45.7 (Little Manly Beach); S 36 37 47.9, E 174 47 45.0 (Rakuananga Point); S 36 36 34.8, E 174 53 52.9.

Upper limit: 2,500ft AMSL.
Lower limit: Surface.
Activity: Activated by NOTAM and Cup ATIS (124.6 MHz) between 0209301900 until 0303100900 (0700 NZST, 01 October 2002 until 2200 NZDT, 10 March 2003); America's Cup.
Controlling authority: Airways Corporation of New Zealand; Whenuapai Tower, telephone (09) 417 7421, frequency 130.1 MHz.
Conditions of use: Operations within NZR190 are subject to the following requirements:
1. entry approval by the Controlling Authority to an approved pilot;
2. no banner towing aircraft, paragliders, parasails, hang gliders, balloons, kites or gliders are permitted;
3. pilots shall set their altimeters to the Whenuapai QNH, as received on the Whenuapai ATIS (128.3 MHz), or the Cup ATIS (124.6 MHz); and
4. pilots shall not approach yachts directly involved in the America's Cup, closer than 800 ft vertically or horizontally without approval;
5. pilots shall operate their aircraft in accordance with pattern requirements set out in the America's Cup briefing package;
6. aircraft shall be operated by two pilots or a pilot and an observer, unless there are no more than three other aircraft at that level. Observers shall have no other technical duties while within NZR190;
7. aircraft shall be operated with landing or anti-collision lights on;
8. aircraft shall be operated with two serviceable VHF radios; and
9. pilots shall report on frequency 130.1 MHz as follows:

- prior to entry for NZR190, aircraft callsign, entry point and altitude: "**Cup Traffic**, [callsign], [altitude], [QNH]"; and
- at expiration of slot time, aircraft callsign: "**Cup Traffic** [callsign] vacating".

Effective between 0209301900 until 0303100900.

NZR 192 Viaduct Basin, Auckland

All that airspace bounded by a line joining S 36 50 30.0, E 174 45 55.7; S 36 50 53.5, E 174 45 43.7 (Skytower); S 36 50 50.5, E 174 45 12.7 (SH1 flyover, Victoria Park); a line following SH1 from S 36 50 50.5, E 174 45 12.7 to S 36 50 34.5, E 174 45 00.7 (St. Marys Bay); a line joining S 36 50 34.5, E 174 45 00.7; S 36 50 07.5, E 174 45 12.7 (Breakwater); S 36 50 11.5, E 174 45 33.7 (Wynyard Wharf); S 36 50 30.0, E 174 45 55.7.

Upper limit: 2,000ft AMSL.
Lower limit: Surface.
Activity: Active between 0209301900 until 0303100900 (0700 NZST, 01 October 2002 until 2200 NZDT, 10 March 2003); America's Cup.
Controlling authority: America's Cup Village Ltd; PO Box 90343, Auckland Mail Centre, telephone (09) 377 4226.
Conditions of use: No aircraft shall operate within NZR192 except in emergency.

Effective between 0209301900 until 0303100900.

